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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,428	01/05/2006	Takahiro Miyagi	284274US6PCT	6481
22850	7590	03/31/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
KLJNOWICZ, WILLIAM JOSEPH				
ART UNIT		PAPER NUMBER		
2627				
NOTIFICATION DATE		DELIVERY MODE		
03/31/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/563,428

**Applicant(s)**

MIYAGI, TAKAHIRO

**Examiner**

William J. Klimowicz

**Art Unit**

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE-08)
- Paper No(s)/Mail Date 1/5/06
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5-8, 10, 11 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by (JP 59-189730 U).

As per claims 1 and 10, (JP 59-189730 U) discloses an optical disc apparatus including drive means (spindle motor) for rotationally driving an optical disc (12) in the state where the optical disc (12) is held, and an optical pick-up for irradiating light beams serving to perform recording or reproduction of information signals on and from the optical disc (12) rotationally driven by the drive means (spindle motor), and for detecting reflected light beams reflected from the optical disc, the optical pick-up comprising: a lens holder portion (10 - which holds objective lenses (11)) portion to which an object lens is (11) attached, and to be moved in a focus direction in parallel to an optical axis of the object lens (11) (to focused the light beam, as is well known) and in a tracking direction perpendicular to the optical axis direction of the object lens (11) (in order to provide servo radial tracking of the disc tracks, as is well known and necessary in an optical disc device); a supporting block (13) for movably supporting the lens holder (10) in the focus direction and in the tracking direction; a supporting member (18, 19 or 24, 25) including a

pair of leg pieces (18, 19 or 24, 25) for supporting and allowing the supporting block (13) to be tilted by fixing front end sides of the leg pieces (18, 19, 24, 25) onto a base (14), the leg pieces (18, 19 or 24, 25) being arranged such that spacing between the leg pieces increases as a distance from a side at which the supporting block (13) is supported increases toward the front end side (that is, as readily seen in FIGS. 2, 3 and 5, the tops of the legs (18, 19 or 24, 25)) are closer at the point at which block (13) is supported, and are farther away from each other at the opposing end, where the legs (18, 19 or 24, 25) connect with base (14)); and a drive mechanism (20, 21, 22) for applying a drive force to the supporting block (13) so as to tilt the supporting block (13) (e.g., see by changing a shape of the pair of leg pieces (18, 19 or 24, 25), whereby tilting the lens holder (10) which is supported by the supporting block (13).

As per claims 2 and 11, wherein the supporting member (13) is adapted so that the leg pieces (18, 19 or 24, 25) are caused to undergo elastic deformation (bending at joints) in a direction to tilt the supporting block (13) with the axis along the tangential direction of recording tracks formed at a disc-shaped recording medium (12) being as fulcrum - see FIGS. 3, 5 and 6).

As per claims 5 and 14, the pair of leg pieces (18, 19 or 24, 25) are arranged so as to take linear symmetry with respect to virtual line passing through the focus direction in parallel to the optical axis of the object lens (11).

As per claims 6 and 15, wherein the pair of leg pieces (18, 19 or 24, 25) are arranged so as to take linear symmetry with respect to virtual line passing through the focus direction at the center in a length direction of the supporting block (13) extending in the tracking direction perpendicular to the optical axis direction of the object lens (11).

As per claims 7 and 16, wherein the supporting member (18, 19 or 24, 25) is adapted so that the leg pieces (18, 19 or 24, 25) are connected to both ends of a supporting block attachment piece (18d, 19d) fixed to the supporting block (13) through an elastic displacement portion (portion of legs that bend) and attachment pieces are provided at front end portions of the respective leg pieces (18, 19 or 24, 25) through the elastic displacement portion, the supporting member (18, 19 or 24, 25) being attached on the base (14) through the attachment pieces (18d, 19d), the leg pieces (18, 19 or 24, 25) being caused to undergo displacement with the respective elastic displacement portions (leg bending joints) being as displacement point.

As per claims 8 and 17, wherein when a drive force for tilting the supporting block (13) is applied from the drive mechanism (20-22), the pair of leg pieces (18, 19 or 24, 25) oscillate as four-linked mechanism constituted by the supporting block (13), the base (14) and the pair of leg pieces (18, 19 or 24, 25).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 9, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over (JP 59-189730 U).

See the description of (JP 59-189730 U), *supra*.

As per claims 3 and 12, (JP 59-189730 U) does not expressly disclose wherein the drive mechanism (20-22) is composed of a voice coil and a rod-shaped magnet, the magnet being attached to the supporting block, the voice coil being attached to the base in the state opposite to the magnet.

Additionally, as per claims 4 and 13, (JP 59-189730 U) does not expressly disclose wherein the drive mechanism (20-22) is composed of a voice coil and a rod-shaped magnet, the voice coil being attached to the supporting block, the magnet being attached to the base in the state opposite to the voice coil.

Official notice is taken that voice coil motor assemblies used in lieu of motor drives (20-22) of the type disclose by (JP 59-189730 U) are notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a voice coil motor assembly (magnet and opposing winding) in the manner prescribed by claims 3, 12 and 4, 13, as is known in the art.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide a voice coil motor assembly (magnet and opposing winding) in the manner prescribed by claims 3, 12 and 4, 13, as is known in the art, in lieu of the motor drive system (20-22) as shown by (JP 59-189730 U), in order to reduce the size of the device, the complexity of the device, the motor heating resistance and power constraints, etc., as is well known, established and appreciated in the art of moving a transducer via a voice coil motor assembly. No new or

unobvious result is seen to be obtained by the simple substitution of the mechanical motor drive (20-22) of (JP 59-189730 U), with a conventional motor positioning voice coil motor assembly, as prescribed by claims 3, 12 and 4, 13, as is well known established and appreciated in the art.

Additionally, as per claim 9, although (JP 59-189730 U) does not expressly disclose wherein two object lenses are supported at the lens holder in the state where they are arranged in the tracking direction and in the tangential direction perpendicular thereto, such dual optical lens structure as set forth in claim 9, is well known in the art.

Official notice is taken that two object lenses are supported at the lens holder in the state where they are arranged in the tracking direction and in the tangential direction perpendicular thereto, as set forth in claim 9, are notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the device of (JP 59-189730 U) with two object lenses are supported at the lens holder in the state where they are arranged in the tracking direction and in the tangential direction perpendicular thereto, as set forth in claim 9, as is known in the art.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the device of (JP 59-189730 U) with two object lenses are supported at the lens holder in the state where they are arranged in the tracking direction and in the tangential direction perpendicular thereto, as set forth in claim 9, as is known in the art, in order to provide a single lens capable of reading two different formatted optical discs (e.g., CD and DVD), as is well known, established and appreciated in the art.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Friday (7:30AM-6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.